

## REMARKS/ARGUMENTS

### *Status of Claims*

Claims 1, 4, 20, 22, 30, and 32 have been amended.

Claims 3, 18, 21, 28, and 31 have been canceled.

Claims 37-41 are new.

As such, claims 1-2, 4-17, 19-20, 22-27, 29-30, and 32-41 are currently pending in this application.

Applicants hereby request further examination and reconsideration of the presently claimed application.

### *Examiner's Interview*

Applicants thank the Examiner for extending the courtesy of a telephone interview on August 30, 2006, the content of which is set forth in the Examiner's Interview Summary mailed on September 01, 2006.

### *Claim Rejection – 35 USC § 103*

Claims 1, 2, 4-17, 19-20, 22-27, 29, 30, and 32-36 stand rejected under 35 USC § 103(a) as being unpatentable over *Bergmeister* (WO 01/41923). Applicants respectfully submit that the prior art of record does not establish a *prima facie* case of obviousness as to the pending claims. According to MPEP 2142, three basic criteria must be met to establish a *prima facie* case of obviousness:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

Similarly, the fact that the Examiner has the burden of proof with respect to the elements of the *prima facie* case of obviousness is also well defined in MPEP 2142:

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

The Examiner has not met the burden of establishing the *prima facie* case of obviousness because the prior art of record does not teach or suggest each and every element of the amended claims. Specifically, independent claims 1, 20, and 30 (and the remaining claims depending there from) recite a catalyst composition having less than 0.3 weight % potassium and a molar ratio of fluoride to potassium of less than 2:1. Applicants respectfully submit that the recited ranges are not disclosed in the prior art of record.

Furthermore, Applicants have obtained surprising results that demonstrate the patentability of the pending claims. In the Examples as described on page 8, lines 10-15 of the specification, Applicants demonstrated that the recited catalysts provide advantageous and surprising results when used in the presence of sulfur impurities. As discussed during the interview, it is surprising that Applicants were able to achieve equivalent or better performance in the presence of sulfur impurities from a catalyst composition having less than 0.3 weight % potassium and a molar ratio of fluoride to potassium of less than 2:1. The equivalent or better performance is shown by comparing the results of inventive catalyst C in Table 1 with the results of control catalysts A and B. Specifically, catalyst C has an equivalent or better ethane selectivity (as is recited in new claims 39 and 40), an equivalent or better ethylene selectivity (as is recited in new claims 41 and 42), and a better clean up temperature in the presence of carbonyl

sulfide (as is recited in new claim 43). These surprising results support the patentability of the pending claims and rebut the obviousness of same.

On page 4 of the Office Action, the Examiner states that Applicants' surprising and advantageous results are not persuasive since (1) the data is not consistent and/or is incorrect and (2) the claimed process is not commensurate in scope with the examples. With respect to item (1), Applicants have amended the claims to correctly recite "fluoride to potassium" ratios as was discussed in the interview. Applicants respectfully submit that this amendment resolves the inconsistency noted by the Examiner. With respect to item (2), Applicants respectfully disagree that the scope of the claims is not commensurate with the examples. However, in an effort to substantively advance prosecution, Applicants have amended the independent claims to remove the term "about" from the 0.3 weight percent potassium limitation. Furthermore, Applicants direct the Examiner's attention to dependent claims 4, 22, and 32 reciting 1:1 molar ratio of fluoride to potassium ratio; dependent claims 23 and 33 and new claim 37 reciting 0.2 weight percent potassium; and dependent claims 24 and 34 and new claim 38 reciting 0.1 weight percent potassium. Applicants respectfully submit that the amended independent claims along with these specific dependent claims are commensurate in scope with the examples of Table 1 demonstrating surprising and advantageous results.

In summary, Applicants respectfully submit that the prior art of record does not teach or suggest such catalyst compositions as recited in the pending claims, nor does the prior art of record teach or suggest that use of such catalysts in the presence of sulfur impurities would yield the advantageous and surprising results demonstrated in the Examples. Thus, Applicants respectfully submit that the pending claims are allowable over the prior art of record.

### CONCLUSION

Consideration of the foregoing amendments and remarks, reconsideration of the application, and withdrawal of the rejections is respectfully requested by Applicants. No new matter is introduced by way of the amendment. It is believed that each ground of rejection raised in the Final Office Action dated May 31, 2006 has been fully addressed. If any fee is due as a result of the filing of this paper please appropriately charge such fee to Deposit Account Number 50-1515 of Conley Rose, P.C., Dallas, Texas. If a petition for extension of time is necessary in order for this paper to be deemed timely filed, please consider this a petition therefore.

If a telephone conference would facilitate the resolution of any issue or expedite the prosecution of the application, the Examiner is invited to telephone the undersigned at the telephone number given below.

Respectfully submitted,

Date: \_\_\_\_\_

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